

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the present amendments and following discussion, is respectfully requested.

Claims 1, 3-14, 16-22, 24-30, 32-43, 45-50, and 52-56 are currently pending, Claims 1, 3, 4, 8, 9, 10, 14, 16, 18, 22, 24, 26, 30, 32, 33, 37, 38, 39, 43, 46, 50, and 53 having been amended, and Claims 2, 15, 23, 31, 44, and 51 having been canceled without prejudice or disclaimer. The changes and additions to the claims do not add new matter and are supported by the originally filed specification, for example, on previous Claims 2, 9, 15, 23, 31, 44, and 51; page 38, lines 10-15; page 79, line 15 to page 81, line 7; and Fig. 17.

In the outstanding Office Action, the specification was objected to; Claims 1, 8, 10, 14, 18, 22, 26, 30, 33, 37, 39, 43, 46, 50, and 53 were objected to for informalities; Claims 1, 8, 30, and 37 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter; Claims 1-56 were rejected under 35 U.S.C. §103(a) as being unpatentable over Frailong et al. (U.S. Patent No. 6,230,194, hereafter “Frailong”).

With respect to the objection to the specification, Applicant respectfully traverses this ground of objection. The Office Action takes the position that the specification fails to provide proper antecedent basis for the recitation of a “computer readable storage medium” as recited in Claims 22 and 50. (See Office Action, at pages 2-3). However, as acknowledged in the Office Action, the specification describes the following on page 103, lines 13-22:

Although the program may be stored in a memory unit, for example, a ROM or a HDD of a computer beforehand, the program may be provided by *storing the program in a recording medium* (e.g. CD-ROM, flexible disk), SRAM, EEPROM, a memory card, and/or other non-volatile recording media (memory). *The program stored in the memory or recording media may be installed in a computer and executed by a CPU, or may be readout from*

the memory or recording media by a CPU and executed by the CPU. (Emphasis Added).

The Applicant submits that the specification clearly provides support and proper antecedent basis for a “computer readable storage medium.” Given that the Office Action acknowledges the above passage in the specification, it is not clear why the Office Action made the objection, and the Office Action has not shown or articulated the basis for the objection. Therefore, Applicant respectfully requests that this objection be withdrawn.

With respect to the objections to Claims 1, 8, 10, 14, 18, 22, 26, 30, 33, 37, 39, 43, 46, 50, and 53, Applicant respectfully submits that the present amendments to these claims, changing “when” to “if” or “after,” overcomes these grounds of objection.

With respect to the rejection of Claims 1, 8, 30, and 37 under 35 U.S.C. §101, Applicant submits that the present amendment to Claims 1, 8, 30, and 37, clarifying that a “processor” is configured to provide the claimed “units” recited in the claims, overcomes this ground of rejection. Applicant notes that MPEP § 2106 states the following:

Office personnel have the burden to establish a *prima facie* case that the claimed invention **as a whole** is directed to solely an abstract idea or to manipulation of abstract ideas or does not produce a useful result. **Only when the claim is devoid of any limitations to a practical application in a technological arts should it be rejected under 35 U.S.C. § 101.** (Emphasis added).

Applicants respectfully submit that each claimed “device” comprising at least a “processor,” as recited in Claims 1, 8, 30, and 37 is a tangible structure, and is supported in the specification, for example, on page 38, lines 10-15. Therefore, Applicant respectfully submits that each of Claims 1, 8, 30, and 37 *as a whole* is not devoid of *any* tangible limitations as indicated by the MPEP.

With respect to the rejection of Claim 1 under 35 U.S.C. §103(a), Applicant respectfully submits that the amendment to Claim 1 overcomes this ground of rejection.

Amended Claim 1 recites, *inter alia*,

a certification information invalidation requesting unit configured to request the target update device to erase the first certification information subsequent to the transmittal of the update software by establishing a second connection via the second communication protocol with the target update device and determining if the target update device successfully obtained the update software, and if the update is successful, establishing a second connection via the first communication protocol with the target update device and transmitting an erasure password to the target update device over the second connection via the first communication protocol and requesting the target update device to erase the first certification information by overwriting the first certification information with the erasure password, and disconnecting the second connection via the first communication protocol after the target update device completes overwriting the first certification information with the erasure password.

Applicant respectfully submits that Frailong fails to disclose or suggest these features of amended Claim 1.

Frailong is directed to a system for upgrading the software contents of a network interface device connecting a client computer system to an external network. Fig. 2 of Frailong shows a system including a client network 220, gateway interface 208, remote management server 206, and internet service provider 204. Frailong describes a process in which the software in the gateway interface device is upgraded (see col. 14, line 62). In this process, the upgrade package is made available on a file transfer protocol (FTP) site (see col. 15, lines 16-23). The remote management server sends a notification message to the gateway interface device which includes an address of the FTP site where the upgrade is available (see col. 15, lines 24-42). The gateway interface device can then retrieve the upgrade package from the specified FTP site (see col. 15, lines 64-66).

The Office Action takes the position that Frailong describes using SSL communication between the gateway interface device and the remote management server, and this corresponds to a “certification information setting unit configured to generate a first certification information, and transmit the first certification information to the target update device via a first communication protocol over the network.” (See Office Action, at page 6, citing col. 19, lines 39-41 and 50-52 of Frailong). Therefore, the Office Action appears to be interpreting the remote management server 206 of Frailong as corresponding to the claimed software update device which includes the claimed certification setting unit, and the SSL communication as the claimed “via a first communication protocol over the network.”

Frailong describes that a RSA hardware certificate 1416 is used for verifying the identity of a gateway interface device that is opening a SSL communication session with a remote management server (see col. 19, lines 39-41). Therefore, the Office Action takes the position that the RSA hardware certificate 1416 corresponds to the claimed “first certification information.” (See Office Action, at page 3).

With regard to previously presented Claim 2, the Office Action takes the position that Frailong describes “a certification information invalidation requesting unit configured to request the target update device to invalidate the first certification information subsequent to the transmittal of the update software.” (See Office Action, at page 9, citing col. 20, lines 11-13 of Frailong). Specifically, col. 20, lines 3-13 of Frailong describes the following:

Except for the root certificates, most certificates are only valid for a fixed period of time and automatically expire after this period (e.g., two years). If, however, a certificate needs to be invalidated prior to its expiration date (for example, in the case of a key compromise), the present invention includes a method for certificate revocation. Most certificates are maintained in the data store of a gateway interface device. A method for revocation utilizes the reconfiguration and update mechanism using Certificate Revocation Lists. A

Certificate Revocation List is a time-valued list of serial numbers signed by a Certification Authority.

Therefore, Frailong describes that to invalidate a certificate before its expiration time, a Certification Revocation List is used which is a “time-valued list of serial numbers signed by a Certification Authority.” However, Frailong does not specifically describe what exactly the list of serial numbers are, where they are sent from, or how they are used to revoke a certificate. Additionally, Frailong does not describe that in the process of invalidating a certificate, first, a connection is set up between the remote server 206 (as the software update device) and the gateway interface 208 (as the target update device) over a connection via FTP (as the second communication protocol) and determining if the gateway interface successfully obtained the update software. Frailong also does not describe that after determining that the software update was successful, the remote server establishes a connection via SSL (as the first communication protocol) and transmits the Certificate Revocation List or a serial number in the Certification Revocation List to the gateway interface device over the SSL connection, and requests the gateway interface device to overwrite the stored certificate with the serial number in the Certification Revocation List.

Therefore, Applicant respectfully submits that Frailong fails to disclose or suggest “a certification information invalidation requesting unit configured to request the target update device to erase the first certification information subsequent to the transmittal of the update software by establishing a second connection via the second communication protocol with the target update device and determining if the target update device successfully obtained the update software, and if the update is successful, establishing a second connection via the first communication protocol with the target update device and transmitting an erasure password to the target update device over the second connection via the first communication protocol and requesting the target update device to erase the first certification information by

overwriting the first certification information with the erasure password, and disconnecting the second connection via the first communication protocol after the target update device completes overwriting the first certification information with the erasure password,” as defined by amended Claim 1.

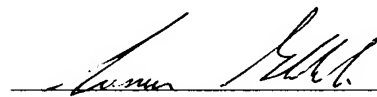
Therefore, Applicant respectfully submits that amended Claim 1 (and all associated dependent claims) patentably distinguishes over Frailong.

Amended independent Claims 8, 14, 22, 30, 37, 43, and 50 recite features similar to those of amended Claim 1 discussed above. Thus, Applicant respectfully submits that amended Claims 8, 14, 22, 30, 37, 43, and 50 (and all associated dependent claims) patentably distinguish over Frailong.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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